

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MICHIGAN
SOUTHERN DIVISION

IN RE: FCA US LLC MONOSTABLE
ELECTRONIC GEARSHIFT LITIGATION

MDL No. 2744

Case Number 16-md-02744
Honorable David M. Lawson
Magistrate Judge David R. Grand

**OPINION AND ORDER GRANTING PLAINTIFFS' MOTION TO EXCLUDE
TESTIMONY OF BRUCE STROMBOM AND GRANTING IN PART AND DENYING
IN PART PLAINTIFFS' MOTION TO EXCLUDE TESTIMONY OF THOMAS KUHN**

The plaintiffs have moved to exclude the testimony at the issues class trial of the defendant's damages expert, Bruce Strombom and its engineering expert, Robert Kuhn.

The plaintiffs allege in their second amended consolidated master complaint (SACMC) that the defendant sold certain vehicle models that were defective because they were equipped with a monostable shifter. That shifter design is defective, they contend, because "it inhibits reliable gear selection and provides insufficient tactile or audible feedback to allow drivers to readily and confidently shift to their intended gear." The Court denied the plaintiffs' motion to certify a class of individuals because the plaintiffs could not establish the predominance of common issues over individual issues in their proposed classes and subclasses as required by Rule of Civil Procedure 23(b)(3). The SACMC presently embraces claims under the law of 21 states on a variety of legal theories including product liability, breaches of express and implied warranties, consumer fraud, misrepresentation, and unjust enrichment. However, the Court certified a common issues class and scheduled the case for trial on those issues. The trial was adjourned indefinitely because of the limitations imposed by the novel coronavirus pandemic. Because the trial will be rescheduled in the coming months, however, the pretrial motions now will be addressed.

The Court previously excluded certain opinions offered by Dr. Strombom at the class certification stage of the case. Dr. Strombom has filed a supplemental report, which is the target of the plaintiffs' present motion. The defendant intends to offer the testimony of Robert Kuhn as a human factors engineering expert, which the plaintiffs also challenge. For the reasons that follow, the testimony of these witnesses will not be admitted in full at the common issues trial.

I.

As a general rule, witnesses may not testify at trial unless they have personal knowledge of the facts about which they testify. Fed. R. Evid. 602. An exception to that rule exists for certain individuals who have special knowledge about a subject that extends beyond the common knowledge of jurors and may be helpful to them to decide a case. *United States v. Rios*, 830 F.3d 403, 413 (6th Cir. 2016). Those individuals — sometimes called “experts” — are allowed to testify in the form of an opinion based on information made known to them by others. Fed. R. Evid. 702, 703. It is useful to repeat the general criteria for the admission of expert testimony and the Court's role as gatekeeper.

Evidence Rule 702, which governs expert testimony generally, was modified in December 2000 to reflect the Supreme Court's emphasis in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), and *Kumho Tire Co. v. Carmichael*, 526 U.S. 137 (1999), on the trial court's gatekeeping obligation to conduct a preliminary assessment of relevance and reliability whenever a witness testifies to an opinion based on specialized knowledge. Rule 702 states:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:

- (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
- (b) the testimony is based on sufficient facts or data;
- (c) the testimony is the product of reliable principles and methods; and

- (d) the expert has reliably applied the principles and methods to the facts of the case.

The language added by the 2000 amendment — subparagraphs (b) through (d) — restates *Daubert*'s insistence on the requirements that an expert's opinion be based on a foundation grounded in the actual facts of the case, that the opinion is valid according to the discipline that furnished the base of special knowledge, and that the expert appropriately "fits" the facts of the case into the theories and methods he or she espouses. *See Daubert*, 509 U.S. at 591-93.

An expert's opinion is not relevant unless it is based on the actual facts of the case. *Lee v. Smith & Wesson Corp.*, 760 F.3d 523, 529 (6th Cir. 2014) (Keith, J. dissenting) ("The 'relevancy' prong of Rule 702 requires that an expert's theory adequately 'fit' the facts of the case. Expert testimony that does not fit the facts does not relate to an issue in the case and, therefore, is not relevant.") (citing *Daubert*, 509 U.S. at 591). An opinion is "reliable" from an evidentiary standpoint if it is "valid" according to the discipline upon which it is based. *See Daubert*, 509 U.S. at 590. In determining validity, the Court's focus is on principles and methodology, not results.

Even where an expert's opinion does not embrace the specific factual situation at hand, he or she still may be able to offer testimony helpful to the factfinder. The 2000 Amendments to Rule 702 did "not alter the venerable practice of using expert testimony to educate the factfinder on general principles." Fed. R. Evid. 702 Advisory Committee Notes to 2000 Amendments. Rule 702 allows an expert to "testify in the form of an opinion or *otherwise*" (emphasis added), which means that the expert may share his or her special knowledge with the factfinder in areas that might extend beyond the information known to the average person. *See, e.g., Redmond v. United States*, 194 F. Supp. 3d 606, 615 (E.D. Mich. 2016) (stating that an expert's testimony could be helpful to the jury if the information is "beyond the ken of common knowledge") (citing *Berry v. City of Detroit*, 25 F.3d 1342, 1350 (6th Cir. 1994)). However, when an expert's testimony does not take

the form of an opinion, but rather focuses on “educat[ing] the factfinder on general principles,” application of the foundational elements in Rule 702 takes on a different cast. Take *First Tennessee Bank National Association v. Barreto*, 268 F.3d 319 (6th Cir. 2001), for example. In that case, the expert witness described industry customs dealing with prudent banking practices. The court held that the *Daubert* factors were not helpful in determining the admissibility of an expert’s testimony on whether the plaintiff followed such practices. It reasoned that because the basis of the expert’s testimony was his “own practical experiences throughout forty years in the banking industry,” his testimony was not the sort that “len[t] [it]sel[f] to scholarly review or to traditional scientific evaluation.” *Id.* at 335.

These general principles help determine the admissibility of the proposed opinion testimony as it may bear on the issues presented in the upcoming common issues trial.

II.

The three issues certified for the common issues trial are:

- Whether the monostable gear shift has a design defect that renders the class vehicles unsuitable for the ordinary use of providing safe transportation.
- Whether the defendant knew about the defect and concealed its knowledge from buyers of the class vehicles.
- Whether information about the defect that was concealed would be material to a reasonable buyer.

After the Court excluded most of Dr. Strombom’s opinions at the earlier stage of the case, he produced a supplemental report in which he identified the scope of his work as follows: “I have been asked to quantify damages to Plaintiffs’ proposed class as a whole, as of the dates of initial purchase/lease of the at-issue vehicles, under the assumption that class-wide damages can and must be calculated. I have not been asked to evaluate, and do not express any opinions on, whether the

Alleged Defect exists, or what the Alleged Defect consists of.” Expert Report of Bruce Strombom, ECF No. 596-2, PageID.24948.

At first blush, this opinion does not appear to relate to any of the issues certified for trial; none of them encompasses damages. However, Dr. Strombom also stated his opinion that his “findings indicate that consumers do not value Class Vehicles less because of the Alleged Defect and would not have valued the Class Vehicles less at the point of initial sale or lease if the Alleged Defect had been disclosed.” Expert Report at PageID.24949. That opinion may have some oblique relevance to the third certified issue, and therefore the plaintiff’s motion to exclude Dr. Strombom’s testimony must be addressed before trial.

Dr. Strombom asserts, based on his review of the academic literature, that “research finds that the U.S. resale automobile market quickly and efficiently incorporates information on vehicle quality as evidenced by a diminution of value for defective vehicles,” and, “academic economists have found that the revelation of product defects can have measurable impacts on the prices of used vehicles.” *Id.* at PageID.24957 (citing three recently published articles). Strombom stated that he identified comparable vehicles to the class models for a study of resale prices, and then “obtained data on used vehicle prices from NADA,” which is a national dealer association and data clearinghouse that “calculates the price of used vehicles based on resale values of vehicles traded in major auction houses in the United States,” based on “data derived from . . . more than 1.5 million vehicle transactions each month.” *Id.* at PageID.24966. Strombom then analyzed the data using various conventional statistical techniques of visualization and quantization and concluded that his “results indicate that Class Vehicles did not experience an acceleration in depreciation relative to comparable vehicles as of Q2 2016.” *Id.* at PageID.24973.

The plaintiffs ask the Court to reaffirm its prior ruling excluding Dr. Strombom's testimony on the basis that he is admittedly unqualified to opine on the design of a conjoint analysis and his proposed method of using used car pricing data to assess the plaintiffs' damages is unreliable. The defendant contends that Dr. Strombom's testimony is not precluded from the issue trial by the Court's previous ruling because he would testify on different subjects for different ends, and his testimony will be confined to "his conclusion[] [that] class vehicles [did] not depreciate more rapidly than peer vehicles, even after the alleged defect became widely known in the market," along with his opinion that "this analysis demonstrates that consumers do not value Class Vehicles less because of the alleged defect." In their reply brief, the plaintiffs raise a new ground for exclusion of the testimony for the re-framed purposes stated by the defendant in its response, arguing that Strombom's analysis of depreciation is irrelevant and unreliable as a predictor of consumer car buying preferences, because the data on which his estimates were based was drawn entirely from wholesale auctions of vehicles through auto brokers, and he conceded that in those venues the cars were bought almost exclusively by commercial dealers intending to resell them, not by individuals evaluating their suitability for safe and reliable personal transportation.

Dr. Strombom's qualifications as an economist and the substance of most of his opinions on assessment of class-wide damages were reviewed at length in the Court's opinion granting in part the plaintiffs' motion to exclude from the class certification proceeding any testimony by him either criticizing Dr. Justine Hastings's methods or purporting to provide an alternative estimate of class damages based on used car valuations and depreciation. *In re FCA US LLC Monostable Elec. Gearshift Litig.*, 382 F. Supp. 3d 687 (E.D. Mich. 2019). In that ruling, the Court concluded that Dr. Strombom's testimony was permissible on the topic of whether the plaintiffs suffered

damages due to “excess depreciation” of their cars on the used market, but that theory of damages later explicitly was abandoned and disavowed by the plaintiffs.

The only conceivable purpose for Dr. Strombom’s testimony at the common issues trial would be to rebut Dr. Hastings’s opinion that her survey results demonstrate a diminished willingness to pay for cars with the alleged design defect. Dr. Hastings’s testimony likely would be offered by the plaintiffs as relevant to show that a reasonable buyer would find information about the defect material to their buying decision. However, Dr. Strombom concedes that he never undertook any study of actual consumer choice behavior; his conclusions were based solely on perusal of wholesale transactions through large broker operations where cars are bought by commercial dealers for eventual resale to consumers. Nowhere in his report or in his testimony did he articulate any reliable method for translating wholesale pricing trends to consumer retail prices, and he has not cited any authority — academic or legal — for the proposition that any such extrapolation can be derived soundly.

The Sixth Circuit has addressed “[t]his problem of speculative leaps about product dangers . . . in the context of proving causation.” *Mitchell v. City of Warren*, 803 F.3d 223, 230 (6th Cir. 2015). An expert’s opinion is deemed unsound when, as here, “there is simply too great an analytical gap between the data and the opinion proffered.” *Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997); *see also Tamraz v. Lincoln Elec. Co.*, 620 F.3d 665, 670 (6th Cir. 2010) (stating that speculation does not amount to “scientific knowledge” under Evidence Rule 702); *Kalamazoo River Study Grp. v. Rockwell Int’l Corp.*, 171 F.3d 1065, 1073 (6th Cir. 1999) (refusing to allow jury to “speculate” based on expert testimony to fill a “gap” in the evidence).

Moreover, the Court previously found that Dr. Strombom’s testimony was inadmissible significantly because he conceded that he was unaware of any method for reliably calculating

point-of-sale damages based on the same used market wholesale pricing data on which he now relies. *In re FCA*, 382 F. Supp. 3d at 695 (“Dr. Strombom admitted that he did not know how used car prices could be used to estimate point-of-sale damages, he never has tried to apply used car sales data in that fashion in any case, and he is not aware of any academic literature endorsing the use of used car sales prices to estimate point-of-sale damages in a concealed defect case.”). It is undisputed that Dr. Strombom’s supplemental report mirrors in substance his previous report, except for the addition of a final “analysis” by which he calculated the point-of-sale damages incurred by the plaintiff class as “zero percent” of the prices actually paid by class members, based on his finding that there was “no excess depreciation” of class vehicles revealed by pricing trends in the used wholesale market. But that opinion proceeds from the same defective hypothesis that the Court previously found inadmissible, merely relabeled and proffered by the defendant as bearing on materiality rather than damages. If there is no sound way to relate used car prices to new car prices for the purpose of disproving damages, then it is equally improper to allow the same unreliable opinion for the alternative purpose of disproving materiality.

Dr. Strombom also admits that the data he analyzed was entirely derived from wholesale purchases by commercial dealers, and he made no attempt either in his report or at his deposition to articulate the choice factors that such transactions would involve, or how those factors could be translated in a reliable manner to the manifestly different set of priorities that a retail consumer would have in mind when making a purchasing decision. Certainly, it is unsurprising that a known safety defect may have *some* bearing on a wholesale dealer’s assessment of how much to bid on a particular vehicle. But Dr. Strombom has not made any attempt to explain how that factor might weigh differently in a wholesale purchase versus a retail consumer sale, nor has he made any attempt to account for other disjoint factors in the two settings.

Several factors therefore undermine the reliability of the opinion. *First*, Dr. Strombom conceded at his deposition that all or nearly all of the transactions in his data set involved wholesale buys by commercial auto dealers. Strombom dep. at 34, ECF No. 631-1, PageID.29015 (“Q. Who purchases vehicles at auto auctions? A. Generally speaking they’re purchased by dealers who are intending to re-sell the vehicles, though that’s not exclusively true.”) *Second*, he admitted that those dealers would be buying cars for eventual resale to consumers, not for personal use. *Id.* at 37, PageID.29018 (“Q. It sounds to me like a wholesale purchaser at an auction would buy the vehicle with intent to re-sell it for a profit as opposed to taking it home and driving it themselves and putting their family in the vehicle, right? . . . A. That would be my expectation.”). *Third*, he conceded that he could not say that any reduction in willingness to pay by retail consumer buyers could be extrapolated by via any reliable method from an observed level of demand by commercial auto buyers at wholesale auctions. *Id.* at 65, PageID.29019 (“Q. So it is your assumption that the reduction in willingness to pay by a group of consumers would be relatively the same as a professional car purchaser at wholesale? . . . A. I wouldn’t say it that way. This willingness to pay is not what we’re measuring here. What we’re measuring is transaction prices, the actual transaction prices, which is a function of both supply and demand.”); *id.* at 66-67 (“Q. So is the demand curve for professional purchasers at auction with the intent to re-sell going to look identical to the demand curve of consumers purchasing the same vehicles on a car lot? . . . A. We would not expect the same demand curve, nor — nor does the demand curve need to be the same for the purposes of my analysis.”).

Finally, Dr. Strombom makes no attempt to account for self-evident and significant differences in the purchase settings, such as the fact that in an auction, dealers must bid competitively against other dealers to obtain automobiles, whereas in a consumer retail sale the

pricing negotiation typically occurs one-on-one between a salesperson and the prospective owner, without competition from any onlooking fellow consumers bidding for the same vehicle. Dr. Strombom never articulated any theory to explain how such differences could be accounted for reliably, and he has not cited any authority, academic or legal, suggesting that any such reliable method exists and could be applied. Dr. Strombom previously conceded that he knew of no reliable method for translating wholesale used market prices to retail new car prices for the purpose of calculating point of sale damages; he has offered nothing new to suggest that any sensible relationship can be derived for the alternative purpose of assessing willingness to pay or materiality.

The plaintiffs' motion to exclude Dr. Bruce Strombom's testimony at the common issues trial will be granted.

III.

The defendant intends to call Robert Kuhn, a professional engineer, to testify about the field of human factors engineering. Kuhn is a managing engineer at JP Research, Inc., in Commerce Township, Michigan. He holds a Bachelor of Science degree in engineering from Carnegie Mellon University and a Master of Science degree in engineering from the University of Michigan. His professional resume spans 35 years of automotive industry experience as an engineer and consultant. Robert Kuhn Resume, ECF No. 597-2, PageID.25084-087. His background is in automotive systems engineering, and he specializes in the analysis of engineering design issues, instrumented testing and test data, analysis of warranty data, and investigation and analysis of "failure events" in automobiles. He has extensive experience in powertrain and chassis design, among other areas. Within the past four years, he has testified in more than 25 matters pending in various state and federal courts on a range of safety and technical issues.

Kuhn's experience before joining JP Research included work as a managing engineer at Exponent/Failure Analysis Associates, where he oversaw projects including "vehicle driving and performance evaluations." Before that, he was employed by DaimlerChrysler, where he held various positions including as a supervisor in Chrysler's Vehicle Safety Office Chassis Systems Investigation department. In that role he worked with both Chrysler and NHTSA staff on safety related investigations. He also held engineering jobs in which he oversaw the design of various vehicles including the Jeep Liberty. His resume lists particular expertise in "product design and development," "failure modes and effect analysis," "product/component failure," and "root cause analysis."

In his report, Kuhn stated the following opinions: (1) the 8-speed electronic transmission used in the class vehicles "required the use of shift by wire (SBW) technology" to control gear selection, (2) when the subject vehicles were redesigned to use the 8-speed transmission, "the only commercially available SBW gear shifters were of either monostable lever or polystable rotary design," and "a lever-style polystable shifter design did not exist and was not commercially available," (3) "[t]he polystable rotary shifter was not available for use in the WK (Grand Cherokee) platform due to IP [intellectual property] and commercial issues with Jaguar," (4) "[e]valuation and testing of the [ZF shifter designs] during development and integration into the subject vehicle platforms did not identify or demonstrate any safety issues or concerns that would or should have precluded their use," (5) the gear shift designs used in the class vehicles "were consistent with those used by other manufacturers in their SBW-equipped vehicles and met all of the requirements of the applicable [Federal Motor Vehicle Safety Standard (FMVSS)] regulations," (7) "the two different electronic gear shifters used in the WK and LD/LX platforms do not share a common form, design, or part number," (8) all of the vehicles owned by named

plaintiffs except one had FCA's "S27" recall fix installed, and each of those cars were "determined to be functioning correctly and safe to operate," (9) before the recall, "the vast majority of the subject vehicles (over 99% . . .) were safely operated as designed and produced with the monostable shifter," and "the addition of an 'auto park' feature [per the S27 recall] was intended to further reduce the potential for an inadvertent vehicle movement [] due to operator input errors by a small minority of vehicle drivers," (10) "no vehicle transmission shift selection system is completely immune from the potential for operator-related errors," and "errors and issues can and do occur with both mechanical and SBW systems in the vehicles of many if not most [] manufacturers," and (11) every passenger vehicle and light truck sold in the U.S. is required to have a parking brake system installed, which is intended to prevent the vehicle from inadvertently moving from a parked position, and use of the parking brake is "required, recommended, and/or referenced in the driver training manuals of 47 [] states." Expert Report dated Nov. 16, 2018, ECF No. 597-2, PageID.25078-79.

The report indicates that as source materials, Kuhn reviewed (1) deposition testimony by two of the defendant's witnesses, Jim Bielinda and Jay Tenbrink, (2) expert reports produced by the plaintiffs' experts Craig Rosenberg and Justine Hastings, (3) "research documents" of unspecified content evidently consisting of patent materials and engineering specifications for various transmission and shifter designs, (4) "owner manuals" and "sales brochures" from eight car makers including Chrysler-Jeep, BMW, Audi, Jaguar, and others, (5) "NHTSA documents" relating to several recalls and safety investigations, (6) the plaintiffs' second amended class action complaint in this matter, and (7) various discovery documents consisting of emails, presentation slides, meeting minutes, and "product test and development related documents." Expert Report, App'x A, ECF No. 597-2, PageID.25080.

The plaintiffs argue that Kuhn's testimony must be excluded because (1) he concedes that he has no expertise in "human machine interface" design, rendering him unqualified to opine on the safety implications of the defendant's gear shift interface, (2) he relied merely on portions of the record and anecdotes not derived from any methodological study of alternative designs to support his conclusions that the mis-shift complaints are not unique to the defendant's design and the "fix" of deploying an auto-park feature was effective and appropriate, (3) his assertion that the installations of the gear shift in different models are "non-interchangeable" and thus not comparable on a class-wide basis is supported only by deposition testimony from one witness that at least two part numbers for the gear shift were assigned by the defendant, and two photographs showing the shifter installed in different cars, (4) his conclusion that the software patch was effective is flawed because his study of the gear shifter did not consider "overshoot" or "undershoot" errors, but examined only "inadvertent movement" from the "parked" setting, (5) the bulk of Kuhn's report is merely a slanted, defendant-favorable recitation of the "facts" of the case, as the defendant prefers to view them, unsupported by any personal knowledge and inappropriately trenching on the jury's province to determine the facts, such as whether an alternative safer design was available, (6) Kuhn's opinion that the Jaguar rotary shifter design "was not commercially available" in 2012 is particularly specious because it is contradicted by record evidence demonstrating that Jaguar was willing to license the design and remained willing to do so until FCA abruptly halted negotiations, and (7) Kuhn's opinions that the defendant's actions were "reasonable" and "proper" are merely attempts to imprint the defendant's legal positions with the aura of "expert" testimony and tell the jury what legal conclusions to reach.

The defendant refutes each of these arguments. It contends that Kuhn based each of his opinions on appropriate documentation, first-hand observations, and his straightforward

computations. They contend that his opinions are not contradicted by the record, but instead that there are fact issues in play that the jury must decide, which will have some bearing on Kuhn's opinions.

The plaintiffs have the better arguments. With certain limited exceptions discussed below, Kuhn's opinions will not be admitted at the common issues trial because his report and testimony demonstrate that most of his opinions are unsupported by any reliable method or adequate factual basis. The several topics of his proposed testimony are discussed in turn.

A. Commercial Availability of Alternative Designs

Kuhn proposes to testify that when the subject vehicles were redesigned to use the 8-speed transmission, the only commercially available shift by wire (SBW) gear shifters were either monostable lever or polystable rotary designs, a lever-style polystable shifter design did not exist and was not commercially available, and the polystable rotary shifter was not available for use in the Grand Cherokee platform because of intellectual property and commercial limitations by Jaguar. The first conclusion that no polystable lever-style design was extant on the market before the 2012 model year does not appear to be in dispute; that opinion will be allowed. However, the second opinion that the polystable rotary shifter was "not available" is nothing more than an argumentative and slanted echo of the defendant's litigating position based on a single documentary exhibit, which is subject to varying interpretations, and which it will be the duty of the jury to deliberate upon.

The document in question is a slide presentation produced by Chrysler during the engineering process for the 2012 model year class vehicles. In a bullet point labeled "current status of Jaguar negotiations," the status was described as follows: "LX (300) & LD (Charger) — can be used on all models," and "Jeep SUV — awaiting response, potentially 'no' due to competition with Land Rover." Slides re: 2012 MY LD & LX E-Shifter, dated Nov. 20, 2010, ECF No. 597-

4, PageID.25116. In a concluding slide, labeled, “Decisions/Next Steps,” the presentation reflected an apparent determination to “Implement Jaguar style rotary knob on ‘12 MY LX & LD.” *Id.* at PageID.25118. A fair reading of that exhibit suggests that the defendant had reached some level of resolve to implement the Jaguar rotary shifter in the LX and LD models, but that use in the WK (Jeep) models remained in doubt due to controversy in the licensing negotiations. Other information presented by the parties, in particular much later correspondence from Jaguar to Chrysler, suggests that the negotiations continued to progress until they were abruptly and unilaterally halted by the defendant, without explanation. At best, the available record leaves open a factual dispute about whether and to what extent the rotary shifter was “commercially available” to the defendant for use in the class vehicles, which it will be the province of the jury to determine during the issues trial, based on the competing facts presented.

The interpretation of that record evidence does not raise any apparent question for which the jury would require the expert aid of an automotive safety engineer to understand the evidence or decide the facts in dispute. Kuhn’s opinion that the Jaguar rotary shifter design was “not commercially available” accordingly will be excluded because it merely reiterates the defendant’s self-serving view of the record, and it would not be helpful to the jury.

B. Existence of a Defect / Reasonability of Design Decisions

Kuhn proposes to opine that the shifter design was safe and the design decisions made by the defendant during its deployment were reasonable because (1) “[e]valuation and testing of the [ZF shifter designs] during development and integration into the subject vehicle platforms did not identify or demonstrate any safety issues or concerns that would or should have precluded their use,” and (2) the gear shift designs used in the class vehicles “were consistent with those used by other manufacturers in their SBW-equipped vehicles and met all of the requirements of the applicable [Federal Motor Vehicle Safety Standard (FMVSS)] regulations.” The trailing

fragmentary opinion concerning regulatory compliance does not appear to be in dispute and may be offered. However, the preceding portions must be excluded because they are unsupported by an adequate factual basis, or worse, they are demonstrably false based on the information supplied in Kuhn's report, on which he says he relied.

Kuhn's report states:

Like a majority of vehicle components, the gear shift selectors used in the subject vehicles were purchased from an outside supplier specifically for use with the Cygnus transmission. As part of the design and development process a number of shifter configurations and concepts from different suppliers were evaluated prior to the final selection and sourcing of the production gear shift system. During these evaluations potential variations in system performance were identified, compared, and addressed. Based on my experience and review of the documents relating to those evaluations, it is clear none of the system designs demonstrated any user interface or safety issues that would preclude or prevent its potential use in the subject vehicles. System selections were limited to the only three designs commercially available at that time:

- Monostable w/separate park selection button (BMW/Mercedes/Toyota)
- Monostable w/integrated park selection by the lever (Audi A8)
- Polystable rotary knob (Jaguar/Land Rover)

Expert Report at PageID.25072.

First, Kuhn admitted at his deposition that he has no expertise in human factors design, which is the field principally concerned with the sort of alleged user interface design defects that now comprise the entire field of this litigation, and which play a dominant role in the safety risks that the plaintiffs contend are inherent in the gear shift design. Kuhn dep. at 112, ECF No. 597-3, PageID.25105 ("I'm not a human factors guy, but I've done a lot of these investigations on other vehicles."); *id.* at 113, PageID.25106 ("Q. You agree that human factors issues can play a role in the safe operation of a vehicle; correct? A. They certainly could affect in this case the occurrence of inadvertent movements, yes."). *Second*, Kuhn admitted that he never reviewed any of the results of the studies commissioned by the defendant before the design went to market, and he has not

explained how the omission of that information can be reconciled with his conclusion that there were “no issues” uncovered during engineering or evaluation. He testified:

Q. You do know from experience that differences with human factors issues can affect claims of inadvertent vehicle movement; correct?

A. Correct.

Q. But you did not investigate or analyze or consider any of the human factors issues in determining whether there could be inadvertent vehicle movement of the class vehicles here?

A. Not specifically. I didn’t do any sort of testing. I did look at field performance return rates again to see if there is a difference between the two platforms. . . .

Q. You didn’t look at the human factors clinics or studies though; correct?

A. I did not, no, not for these opinions.

Q. Are you aware of what any findings were in any human factors clinics or studies that were conducted prior to the manufacture or during the time of manufacture of the class vehicles?

A. Again I can’t say.

Kuhn dep. at 113-14, PageID.25106-07 (emphasis added).

Kuhn’s opinion that the defendant had no reason to believe that its design had problems before the class vehicles went to market appears to be nothing more than his reiteration of the defendant’s litigating position, based on a slanted reading of the record that overlooks significant and readily available information. Similarly, his statement that the design was “consistent with” the designs of other manufacturers pointedly is contradicted by his own description of the competing designs, which noted that all of the other designs incorporated additional features not present in the defendant’s implementation, such as a “separate park selection button” (BMW/Mercedes/Toyota), and, at least after 2009, addition of an “auto park” feature, which the defendant’s design lacked before the 2016 “S27” recall. Only the Audi A8 monostable shifter design, from which the defendant’s design purportedly was derived, was described by Kuhn as

having “integrated park selection by the lever.” Expert Report at 6, PageID.25072 (“Both the WK and LD/LX selector designs are adaptations of a shifter design first used in the 2011 Audi A8.”). Thus, the information relied upon by Kuhn suggests, if anything, that the defendant’s design was not at all “consistent with” the designs of other makers that incorporated additional safety features, or which used entirely different design patterns like the “rotary polystable” system deployed by Jaguar.

The engineering principles or methods that Kuhn used to formulate this opinion are not readily apparent. However, it is evident that he has not “reliably applied [those] principles and methods to the facts of the case.” Fed. R. Evid. 702(d); *Greenwell v. Boatwright*, 184 F.3d 492, 497 (6th Cir. 1999) (stating that “[e]xpert testimony is . . . inadmissible when the facts upon which the expert bases his testimony contradict the [physical] evidence.”); *see also United States v. Lang*, 717 F. App’x 523, 535–36 (6th Cir. 2017) (crediting that argument that “an expert cannot ‘cherry-pick’ only favorable data”) (citing *EEOC v. Freeman*, 778 F.3d 463, 468–71 (4th Cir. 2015) (Agee, J., concurring) (observing that cherry-picking data is just as bad as omitting it or making it up altogether)).

C. Safety Record of the Design

Kuhn expressed several conclusions in his report suggesting that the design as deployed to the market was demonstrably safe, but all his opinions on this point, except with limited exceptions discussed further below, are improper attempts to invade the jury’s deliberations on the central factual issues to be decided. That by itself would not render the opinions inadmissible. Fed. R. Evid. 704(a). But here, the opinions are not supported by an adequate factual basis or reliable logical method.

First, Kuhn opined that all of the vehicles owned by named plaintiffs were “determined to be functioning correctly and safe to operate” after the “S27” recall fix was applied. He did not

elaborate on the basis of that opinion, but presumably any such “determinations” were made by the defendant or its dealer affiliates, and it is nothing more than an unvarnished reiteration of the defendant’s litigating position since the outset of this case and its self-serving insistence that the vehicles are safe but for the unfortunate consequences of “user error.” Kuhn conspicuously does not opine about any independent analysis or examination of design factors undertaken by him to determine whether any design defects exist in the gear shifters at issue. Instead, he merely parrots the defendant’s litigating position and proposes to instruct the jury that it should conclude that the gear shifter design is safe because the defendant says so. That is not a sufficient basis for the opinion. *See Tamraz*, 620 F.3d at 671 (observing that “[t]he ‘ipse dixit of the expert’ alone is not sufficient to permit the admission of an opinion” even though the expert is well qualified) quoting *Joiner*, 522 U.S. at 146). And that is not a technical issue on which the jury requires Kuhn’s assistance to understand; it is the central factual dispute poised for decision in the issue trial. The opinion would be unhelpful to the jury and will be excluded.

Second, Kuhn opined that before the recall “the vast majority of the subject vehicles (over 99% . . .) were safely operated as designed and produced with the monostable shifter,” and “the addition of an ‘auto park’ feature [per the S27 recall] was intended to further reduce the potential for an inadvertent vehicle movement [] due to operator input errors by a small minority of vehicle drivers.” The latter portion of that opinion appears to be merely parroting the defendant’s stated purpose for the recall, and, so far as it mirrors the defendant’s publicly expressed intent, it is uncontroversial. But Kuhn does not assert that he had any personal involvement in or knowledge of the recall process, and the jury does not need his assistance to comprehend the recitations in the defendant’s recall notice, which plainly stated its view of the “problem” that it intended to address.

The preliminary portion of this opinion is the product of a plain logical fallacy by which Kuhn appears to hypothesize that, because less than 1% of class vehicles were identified in complaints received by NHTSA or the defendant, the other 99% must not have suffered any safety issues. But Kuhn does not claim to have any personal knowledge or any other basis of information beyond his perusal of the available complaint databases. His opinion that every other vehicle that was not the subject of a documented complaint “was safely operated as designed” therefore is unsupported by any discernible factual basis. However, for whatever relevance it has, Kuhn validly could testify, based on his examination of the available records, about his calculations that the number of complaints received represented less than 1% of the number of class vehicles produced and sold in the relevant jurisdictions. That conclusion, to that limited extent, will be allowed, but the opinion that all class vehicles that were not the subject of complaints were “safely operated” must be excluded.

Third, Kuhn opined, without elaboration or identification of any specific basis in his experience or the factual record, that “no vehicle transmission shift selection system is completely immune from the potential for operator-related errors,” and “errors and issues can and do occur with both mechanical and SBW systems in the vehicles of many if not most [] manufacturers.” The preliminary portion of that opinion probably is not seriously in dispute, and presumably Kuhn bases it on his decades of experience participating in safety and defect investigations and his own observations that safety problems have occurred with many varieties of shifter designs throughout his career. So far as it goes, that testimony will be allowed, for whatever value it may have in establishing the historical context of gear shift related safety issues.

However, the latter portion of this opinion that “errors” and “issues” occur with shift-by-wire systems deployed by “many” or “most” manufacturers is not supported by an adequate factual

basis in the record. Kuhn reported that based on his research of publicly available documents from manufacturers and NHTSA, five manufacturers had introduced shift by wire systems in their vehicles with the earliest being BMW in its 2002 7-Series models, and the latest preceding the introduction of the class models being Jaguar/Land Rover in its 2009 XF model. All of those models used a “monostable lever” design except Jaguar, which used a “polystable rotary knob.” The implementation of “auto park” features for those systems first occurred by Kuhn’s reckoning in 2009, seven years after BMW first marketed SBW systems in its 7-Series cars, and three years before the class vehicles went to market. Expert Report at PageID.25074. Kuhn then opined, based on his experience as a vehicle safety investigator, that he “is aware” that “inadvertent vehicle movement” incidents, “can occur with both shift by wire and mechanical shift systems,” “can and do occur in different vehicles built by any manufacturer,” and “can and do occur due to operator inputs and errors while using the control systems of those vehicles.” Expert Report at PageID.25076-77. In support of those assertions, Kuhn stated only that it was based on his “experience” and “publicly available NHTSA records.” But his report identified only one recall event as support for those conclusions, which was recounted as follows:

My experience in addition to my review of publicly available NHTSA records confirms FCA is neither the first nor the only manufacturer to experience issues with their transmissions and/or shifter systems (mechanical or SBW) which required a recall repair. Nor are they the only manufacturer to have experienced an operator input related rollaway issue with their shift by wire systems. For example, in October of 2012 BMW recalled certain 2005-2008 SBW equipped 7-Series vehicles whose SBW transmissions could inadvertently select Neutral instead of Park resulting in the possibility of an unattended vehicle rollaway. This condition could occur if the driver repeatedly pressed the ignition start-stop switch while trying to shut down the engine.

Expert Report at PageID.25076-77. That single anecdote certainly does not support the conclusion that “many” or “most” shift by wire designs put on the market by other manufacturers were afflicted with the same sort of safety defects alleged in this case. Moreover, the circumstances of

even that one recall are variant in that the problem manifested when the driver “repeatedly pressed the ignition start-stop switch while trying to shut down the engine.” There never have been any allegations in this case that the defects herein alleged were triggered by such circumstances. Kuhn did not identify any other basis in personal knowledge, general or specific experience, or other documented recall incidents to support his opinion that “many” or “most” similar designs on the market have had similar occurrences of safety issues, and that unsubstantiated generalized opinion therefore will be excluded.

D. Commonality of Design

Kuhn opined in his report that “[t]he shifter included a number of distinct mechanical and electronic differences from the LD/LX [Chrysler 300 / Charger] shifter which were specific to the WK [Jeep Grand Cherokee] platform, its packaging requirements, and application. Consequently, the two different electronic shifters used in the WK and LD/LX platforms are not compatible or interchangeable with one another nor do they share a common form, design, or part number as shown below: [photographs depicting gear shifter components with accompanying part numbers].” Expert Report at PageID.25071. However, during cross-examination on that opinion at his deposition, Kuhn admitted that he had essentially no basis for that conclusion beyond his lay perusal of two unscaled photographs that were included in his report, and his casual estimation that the shifter lever on one component appeared to be longer than the other.

Kuhn stated in his report that the Jeep (WK) and Chrysler (LX/LD) models did not share a common gear shifter design based on his review of unspecified “engineering documents,” and comparison of two photographs of components identified by different part numbers. At his deposition he was unable to recall what documents he reviewed or what information they might have contained about differences in the components. When pressed on the point, he asserted only that, based on looking at the photographs, one appeared to have a “longer shift lever” than the

other, but he could not say how much longer, and he admitted that he had not measured either component. He also conceded that the photographs did not incorporate any scale that might allow accurate estimation of any dimensions of the components depicted. Kuhn dep. at 116-17, PageID.25109-110. Kuhn's hypothesis that the class gear shifter designs differ in some unspecific and unsubstantiated way also is belied by his contemporaneously expressed findings that all of the class models were covered by the same "S27" recall, and all of the plaintiffs' cars that Kuhn examined had the same recall remedy applied. Moreover, the photographs of the gear shifter components included in the report show what apparently are internal parts of the working mechanism; but the alleged defect at issue in this case principally concerns the driver interface with the gear shifter and its parts that are manipulable by and perceptible to the user, which the plaintiffs allege give insufficient indications to the operator of the transmission status or completion of intended gear selections. Certainly, the inner workings of the shifter may have some influence on those tactile and visual interfaces, but Kuhn has made no attempt in his report or testimony to explain how so, and his report, so far as it goes, contains no supporting analysis or detailed examination of those external characteristics tending to suggest any irreconcilably uncommon design features of the shifters as they were deployed in the various class models.

Because his opinions on the commonality of the design are not supported by any adequate factual basis and are not the result of any apparently reliable examination, they must be excluded.

E. Other Topics

Kuhn expressed opinions on three remaining points which appear to be uncontroversial and supported by an adequate foundation. *First*, Kuhn opined that the 8-speed electronic transmission used in the class vehicles "required the use of shift by wire (SBW) technology" to control gear selection. This does not appear to be a matter in serious dispute, and presumably it is substantiated by Kuhn's review of pertinent engineering documents. *Second*, Kuhn stated, based

on his review of publicly available documents and regulations, that every passenger vehicle and light truck sold in the U.S. is required to have a parking brake system installed, which is intended to prevent the vehicle from inadvertently moving from a parked position, and use of the parking brake is “required, recommended, and/or referenced in the driver training manuals of 47 [] states.” That proposition also appears to be adequately grounded and not subject to any serious dispute. *Third*, Kuhn stated that all of the vehicles owned by the named plaintiffs except one had FCA’s “S27” recall fix installed. That conclusion, again, does not appear to be contested, and it evidently is supported by Kuhn’s review of available vehicle maintenance records and, presumably, by the plaintiffs’ admissions.

Kuhn may give those opinions during his testimony at trial.

IV.

The defendant has not satisfied all the requirements of Evidence Rule 702 for admission of the expert testimony of Dr. Bruce Strombom. Several of the proposed opinions of engineer Robert Kuhn likewise do not satisfy those requirements.

Accordingly, it is **ORDERED** that the plaintiffs’ motion to exclude the testimony at trial of Dr. Bruce Strombom (ECF No. 596) is **GRANTED**.

It is further **ORDERED** that the plaintiffs’ motion to exclude the testimony at trial of Robert Kuhn (ECF No. 597) is **GRANTED IN PART AND DENIED IN PART**. Robert Kuhn may give opinion testimony on the following items:

- that no polystable lever-style design was extant on the market before the 2012 model year;
- that the gear shift designs used in the class vehicles met all of the requirements of the applicable Federal Motor Vehicle Safety Standard regulations;
- that the addition of an “auto park” feature via the S27 recall was intended to further reduce the potential for an inadvertent vehicle movement due to operator input errors by a small minority of vehicle drivers;

- that the number of complaints received by the defendant and the NTSB represented less than 1% of the number of class vehicles produced and sold in the relevant jurisdictions;
- that no vehicle transmission shift selection system is completely immune from the potential for operator-related errors;
- that the 8-speed electronic transmission used in the class vehicles required the use of shift by wire technology to control gear selection;
- that every passenger vehicle and light truck sold in the U.S. is required to have a parking brake system installed, which is intended to prevent the vehicle from inadvertently moving from a parked position, and use of the parking brake is required, recommended, or referenced in the driver training manuals of 47 states;
- that all of the vehicles owned by the named plaintiffs except one had FCA's "S27" recall fix installed.

The motion is **GRANTED** in all other respects.

s/David M. Lawson
DAVID M. LAWSON
United States District Judge

Date: March 29, 2022